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VARIABLE THICKNESS PADS ON A SUBSTRATE SURFACE

Abstract of the Disclosure

An electronic structure, and associated method of fabrication, that includes a substrate having attached circuit elements and conductive bonding pads of varying thickness. Pad categories relating to pad thickness include thick pads (17 to 50 microns), medium pads (10-17 microns), and thin pads (3 to 10 microns). A thick pad is used for coupling a ball grid array (BGA) to a substrate with attachment of the BGA to a circuit card. A medium pad is useful in flip-chip bonding of a chip to a substrate by use of an interfacing small solder ball. A thin copper pad, coated with a nickel-gold layer, is useful for coupling a chip to a substrate by use of a wirebond interface. The electrical structure includes an electrical coupling of two pads having different thickness, such that the pads are located either on the same surface of a substrate or on opposite sides of a substrate.